

# **EXHIBIT B**

## **PART 1**

UNITED STATES PATENT AND TRADEMARK OFFICE

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CONTROL NO.	FILING DATE	PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
95/000,122	01/17/06	6,506,130	

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EXAMINER

O'NEILL, M.

ART UNIT	PAPER
3993	

DATE MAILED:

01/30/07

**INTER PARTES REEXAMINATION  
COMMUNICATION**

BELOW/ATTACHED YOU WILL FIND A COMMUNICATION FROM THE UNITED STATES PATENT AND TRADEMARK OFFICE OFFICIAL(S) IN CHARGE OF THE PRESENT REEXAMINATION PROCEEDING.

All correspondence relating to this *inter partes* reexamination proceeding should be directed to the **Central Reexamination Unit** at the mail, FAX, or hand-carry addresses given at the end of this communication.



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**Transmittal of Communication to Third Party Requester  
*Inter Partes* Reexamination**

REEXAMINATION CONTROL NUMBER 95/000,122.

PATENT NUMBER 6,506,130.

TECHNOLOGY CENTER 3999.

ART UNIT 3993.

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above-identified reexamination proceeding. 37 CFR 1.903.

Prior to the filing of a Notice of Appeal, each time the patent owner responds to this communication, the third party requester of the *inter partes* reexamination may once file written comments within a period of 30 days from the date of service of the patent owner's response. This 30-day time period is statutory (35 U.S.C. 314(b)(2)), and, as such, it cannot be extended. See also 37 CFR 1.947.

If an *ex parte* reexamination has been merged with the *inter partes* reexamination, no responsive submission by any *ex parte* third party requester is permitted.

**All correspondence** relating to this *inter partes* reexamination proceeding should be directed to the **Central Reexamination Unit** at the mail, FAX, or hand-carry addresses given at the end of the communication enclosed with this transmittal.

<b>OFFICE ACTION IN INTER PARTES REEXAMINATION</b>	Control No.	Patent Under Reexamination	
	95/000,122	6506130	
	Examiner	Art Unit	
	Michael O'Neill	3993	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address. --

Responsive to the communication(s) filed by:

Patent Owner on \_\_\_\_\_

Third Party(ies) on \_\_\_\_\_

#### RESPONSE TIMES ARE SET TO EXPIRE AS FOLLOWS:

##### For Patent Owner's Response:

2 MONTH(S) from the mailing date of this action. 37 CFR 1.945. EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.956.

##### For Third Party Requester's Comments on the Patent Owner Response:

30 DAYS from the date of service of any patent owner's response. 37 CFR 1.947. NO EXTENSIONS OF TIME ARE PERMITTED. 35 U.S.C. 314(b)(2).

All correspondence relating to this inter partes reexamination proceeding should be directed to the Central Reexamination Unit at the mail, FAX, or hand-carry addresses given at the end of this Office action.

This action is not an Action Closing Prosecution under 37 CFR 1.949, nor is it a Right of Appeal Notice under 37 CFR 1.953.

#### PART I. THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1.  Notice of References Cited by Examiner, PTO-892
2.  Information Disclosure Citation, PTO/SB/08
3.  \_\_\_\_\_

#### PART II. SUMMARY OF ACTION:

- 1a.  Claims 1-6 are subject to reexamination.
- 1b.  Claims \_\_\_\_\_ are not subject to reexamination.
2.  Claims \_\_\_\_\_ have been canceled.
3.  Claims \_\_\_\_\_ are confirmed. [Unamended patent claims]
4.  Claims \_\_\_\_\_ are patentable. [Amended or new claims]
5.  Claims 1-6 are rejected.
6.  Claims \_\_\_\_\_ are objected to.
7.  The drawings filed on \_\_\_\_\_  are acceptable  are not acceptable.
8.  The drawing correction request filed on \_\_\_\_\_ is:  approved.  disapproved.
9.  Acknowledgment is made of the claim for priority under 35 U.S.C. 119 (a)-(d). The certified copy has:  
 been received.  not been received.  been filed in Application/Control No \_\_\_\_\_.
10.  Other \_\_\_\_\_

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## DETAILED ACTION

This first Action on the merits is being mailed after the order granting reexamination.

### *Reexamination Procedures*

In order to ensure full consideration of any amendments, affidavits or declarations, or other documents as evidence of patentability, such documents must be submitted in response to this Office action. Submissions after the next Office action, which is intended to be an Action Closing Prosecution (ACP), will be governed by 37 CFR 1.116(b) and (d), which will be strictly enforced:

### *Statutory Basis for Grounds of Rejections - 35 USC §§ 102 and 103*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

### *Third Party Requester's Grounds of Rejections*

#### *Re. Claim 1*

**Ground #1.** The requester submits that claim 1 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Proudfit, U.S. Pat. No. 5,314,187 (Proudfit).

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**Ground #2.** The requester submits that claim 1 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan et al., U.S. Pat. No. 5,803,831 (Sullivan).

**Ground #3.** The requester submits that claim 1 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt).

**Ground #4.** In the alternative to Ground #3, the requester submits that claim 1 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor et al., U.S. Pat. No. 4,274,637 (Molitor '637).

**Ground #5.** The requester submits that claim 1 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Wu, U.S. Pat. No. 5,334,673 (Wu).

**Ground #6.** The requester submits that claim 1 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor et al., U.S. Pat. No. 4,674,751 (Molitor '751).

*Re. Claim 2*

**Ground #7.** The requester submits that claim 2 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Proudfit.

**Ground #8.** The requester submits that claim 2 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan.

**Ground #9.** The requester submits that claim 2 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt.

**Ground #10.** In the alternative to Ground #9, the requester submits that claim 2 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor '637.

**Ground #11.** The requester submits that claim 2 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Wu.

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**Ground #12.** The requester submits that claim 2 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Nesbitt in view of Molitor '751.

*Re. Claim 3*

**Ground #13.** The requester submits that claim 3 is unpatentable under 35 U.S.C.

§ 102(b) as being anticipated by Proudfit.

**Ground #14.** The requester submits that claim 3 is unpatentable under 35 U.S.C.

§ 102(b) as being anticipated by Sullivan.

**Ground #15.** The requester submits that claim 3 is unpatentable under 35 U.S.C.

§ 102(b) as being anticipated by Nesbitt.

**Ground #16.** In the alternative to Ground #15, the requester submits that claim 3 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor '637.

**Ground #17.** The requester submits that claim 3 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Nesbitt in view of Wu.

**Ground #18.** The requester submits that claim 3 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Molitor '751.

*Re. Claim 4*

**Ground #19.** The requester submits that claim 4 is unpatentable under 35 U.S.C.

§ 102(b) as being anticipated by Sullivan.

**Ground #20.** The requester submits that claim 4 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Proudfit in view of Molitor '637.

**Ground #21.** The requester submits that claim 4 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Proudfit in view of Wu.

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**Ground #22.** The requester submits that claim 4 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Proudfit in view of Molitor '751.

**Ground #23.** The requester submits that claim 4 is unpatentable under 35 U.S.C.

§ 102(b) as being anticipated Nesbitt.

**Ground #24.** In the alternative to Ground #23, the requester submits that claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor '637.

**Ground #25.** The requester submits that claim 4 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Nesbitt in view of Wu.

**Ground #26.** The requester submits that claim 4 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Nesbitt in view of Molitor '751.

*Re. Claim 5*

**Ground #27.** The requester submits that claim 5 is unpatentable under 35 U.S.C.

§ 102(b) as being anticipated by Sullivan.

**Ground #28.** The requester submits that claim 5 is unpatentable under 35 U.S.C.

§ 102(b) as being anticipated Nesbitt.

**Ground #29.** In the alternative to Ground #28, the requester submits that claim 5 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor '637.

**Ground #30.** The requester submits that claim 5 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Nesbitt in view of Wu.

**Ground #31.** The requester submits that claim 5 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Nesbitt in view of Molitor '751.

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**Ground #32.** The requester submits that claim 5 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Proudfit in view of Molitor '637.

**Ground #33.** The requester submits that claim 5 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Proudfit in view of Wu.

**Ground #34.** The requester submits that claim 5 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Proudfit in view of Molitor 751.

*Re. Claim 6*

**Ground #35.** The requester submits that claim 6 is unpatentable under 35 U.S.C.

§ 102(b) as being anticipated by Sullivan.

**Ground #36.** The requester submits that claim 6 is unpatentable under 35 U.S.C.

§ 102(b) as being anticipated Nesbitt.

**Ground #37.** In the alternative to Ground #36, the requester submits that claim 6 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor '637.

**Ground #38.** The requester submits that claim 6 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Nesbitt in view of Wu.

**Ground #39.** The requester submits that claim 6 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Nesbitt in view of Molitor '751.

**Ground #40.** The requester submits that claim 6 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Proudfit in view of Molitor '637.

**Ground #41.** The requester submits that claim 6 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Proudfit in view of Wu.

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**Ground #42.** The requester submits that claim 6 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit in view of Molitor 751.

**Summary of Grounds Adopted vel non**

For Claim 1:

Adopted: 1 and 4-6.  
Not Adopted: 2 and 3.

For Claim 2:

Adopted: 7 and 10-12.  
Not Adopted: 8 and 9.

For Claim 3:

Adopted: 13 and 16-18.  
Not Adopted: 14 and 15.

For Claim 4:

Adopted: 20-22 and 24-26.  
Not Adopted: 19 and 23.

For Claim 5:

Adopted: 29-34.  
Not Adopted: 27 and 28.

For Claim 6:

Adopted: 37-42.  
Not Adopted: 35 and 36.

In sum, Proposed Grounds 1, 4, 5-7, 10-13, 16-18, 20-22, 24-26, 29-34 and 37-42 are

**Adopted by the Examiner.**

In sum, Proposed Grounds 2, 3, 8, 9, 14, 15, 19, 23, 27, 28, 35 and 36 are **Not Adopted**

by the Examiner.

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*Summary of the Grounds of Rejections*

Claims 1-3 are rejected under 35 U.S.C. § 102(b) as being anticipated by Proudfit, U.S.

Pat. No. 5,314,187 (Proudfit)

Claims 1-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt, U.S.

Pat. No. 4,431,193 (Nesbitt) in view of Molitor et al., U.S. Pat. No. 4,274,637 (Molitor '637).

Claims 1-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt, U.S.

Pat. No. 4,431,193 (Nesbitt) mentioning Molitor et al., U.S. Pat. No. 4,274,637 (Molitor '637) in view of Wu, U.S. Pat. No. 5,334,673, (Wu) as evidenced by Exhibit C.

Claims 1-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt, U.S.

Pat. No. 4,431,193 (Nesbitt) mentioning Molitor et al., U.S. Pat. No. 4,274,637 (Molitor '637) in view of Molitor et al., U.S. Pat. No. 4,674,751 (Molitor '751).

Claims 4-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit,

U.S. Pat. No. 5,314,187 (Proudfit) in view of Molitor et al., U.S. Pat. No. 4,274,637 (Molitor '637).

Claims 4-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit,

U.S. Pat. No. 5,314,187 (Proudfit) in view of Wu, U.S. Pat. No. 5,334,673 (Wu).

Claims 4-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit,

U.S. Pat. No. 5,314,187 (Proudfit) in view of Molitor et al., U.S. Pat. No. 4,674,751 (Molitor '751).

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### **Proposed Third Party Requester's Rejections**

#### *Issue of Inherency*

Multiple proposed rejections that the third party requester submits are based on the inherent properties of the materials. In order to prove the inherent properties of these materials the requester has provided "product data sheets" for the following materials: SURLYN (Exhibit I) and ESTANE (Exhibit J). These "product data sheets" have publication dates later than the critical date of the claimed inventions. Also, the third party requester has provided other Exhibits to prove or evidence inherency, e.g. Exhibit C (description of a golf product performance characteristics); Exhibits G and L (patent owner's admissions)

MPEP § 2124 lists exceptions to the rule that the publication date must precede the critical data of the claimed invention: "...facts [that] include the characteristics and properties of a material...". The Shore D hardness and flexural modulus are characteristics and properties of a material. Thus, it is appropriate to use these "product data sheets" to show such a universal fact as the inherent properties of a known material. Moreover, see also MPEP § 2112.01: "Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977)." And, "Products of identical chemical composition can not have mutually exclusive properties." "A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant

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discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990)."

*Copendency*

As discussed in the Decision granting reexamination of the '130 Patent, the request indicates on pages 12 and 13 that the '130 Patent is not an appropriate continuation application because it lacks copendency with application No. 08/870,585 that went abandoned on Feb. 7, 2001 when the Applicant failed to file an appeal brief with two months of a notice of appeal. However, a review of the Office's records show that the Applicant filed a one month extension of time; an additional two months extension of time; and a notice of appeal which provides an Applicant with two months of time. Therefore, the Applicant extended the response time to the final rejection for five months which allow the Applicant to file a response to the final rejection up until April 13, 2001. Application No. 09/832,154, the application to which the '130 Patent issued therefrom, was filed on April 10, 2001. Therefore, the Patent Owner of the '130 Patent maintained proper copendency between the '585 application and the '154 application.

Re. Claim 1

**Proposed Third Party Requester Rejection: Ground #1**

The requester submits on pages 15-17 in the request that claim 1 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Proudfit. It should be noted that the requester's claim chart on pages 16 and 17 does not reflect the actual claim language, see the last limitation. Thus, the Examiner has had to generate a new claim chart and comparison of the prior art to said chart.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Proudfit, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet).

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Below is a claim chart identifying the claim limitations and where Proudfit discloses the claim limitations.

Claim 1	Proudfit								
A golf ball comprising:	"This invention relates to <b>golf balls</b> , and more particularly, to a golf ball having a two-layer cover." (Proudfit, col. 1, ll. 11-12.)								
a core;	<p>"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid <b>core</b> 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit, col. 7, ll. 21-24.)</p> <p>"Two specific solid core compositions used with the new two-layer cover hand the composition described in Table 1. One core was used in a golf ball which was designated as a 90 compression ball, and the other core was used in a golf ball which was designated as a 100 compression ball." (Proudfit, col. 7, ll. 51-55.)</p>								
an inner cover layer having	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard <b>inner layer</b> 13 of one or more ionomer resins ...." (Proudfit, col. 7, ll. 21-24.)								
a Shore D hardness of 60 or more molded on said core,	<p>The composition of the inner cover layer is described in Table 6.</p> <p style="text-align: center;"><b>TABLE 6</b></p> <table border="1"> <thead> <tr> <th colspan="2">Composition of Inner Layer of Cover (Parts by Weight)</th> </tr> <tr> <th>Ionomer Type</th> <th>Blend Ratio</th> </tr> </thead> <tbody> <tr> <td>Eodium-Surlyn 8940</td> <td>75%</td> </tr> <tr> <td>Zinc-Surlyn 9910</td> <td>25%</td> </tr> </tbody> </table> <p>(Proudfit, col. 8, ll. 22-30.)</p> <p>SURLYN 8940 has a <b>Shore D hardness of 65</b>; SURLYN 9910 has a <b>Shore D hardness of 64</b>, see Exhibit I. Therefore, this cover blend has a hardness of 60 or more because materials used to make this inner layer have Shore hardness greater than 60.</p> <p>"The inner layer can be molded in one of two methods:</p> <ol style="list-style-type: none"> <li>1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core.</li> <li>2. Injection mold halfshells, place halfshells over the core,</li> </ol>	Composition of Inner Layer of Cover (Parts by Weight)		Ionomer Type	Blend Ratio	Eodium-Surlyn 8940	75%	Zinc-Surlyn 9910	25%
Composition of Inner Layer of Cover (Parts by Weight)									
Ionomer Type	Blend Ratio								
Eodium-Surlyn 8940	75%								
Zinc-Surlyn 9910	25%								

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	<p>compression mold the inner cover over the core.” (Proudfit, col. 8, ll. 32-38.)</p>						
the inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	<p>The composition of the inner cover layer is described in Table 6.</p> <p style="text-align: center;"><b>TABLE 6</b></p> <hr/> <p style="text-align: center;">Composition of Inner Layer of Cover (Parts by Weight)</p> <hr/> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Ionomer Type</th> <th style="text-align: right;">Blend Ratio</th> </tr> </thead> <tbody> <tr> <td>Sodium-Surlyn 8940</td> <td style="text-align: right;">75%</td> </tr> <tr> <td>Zinc-Surlyn 9910</td> <td style="text-align: right;">25%</td> </tr> </tbody> </table> <p>(Proudfit, col. 8, ll. 22-30.)</p> <p>SURLYN 8940 and 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p> <p>Proudfit either incorporates by reference these chemical properties or the materials used within the Proudfit golf ball inherently have these chemical properties. For instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of its invention. (Proudfit, col. 1, ll. 39-43.) The '981 Patent discloses the preferable amount of <b>unsaturated carboxylic acid is “from about 5[%] to about 15% by weight.”</b> ('981 Patent, col. 3, ll. 59-60.) If Proudfit discloses using blends of SURLYN as the chemical for making the inner cover and the '981 Patent is the formulation for the ionomer known in the art as SURLYN, then inherently grades of SURLYN such as SURLYN 8940 and 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p>	Ionomer Type	Blend Ratio	Sodium-Surlyn 8940	75%	Zinc-Surlyn 9910	25%
Ionomer Type	Blend Ratio						
Sodium-Surlyn 8940	75%						
Zinc-Surlyn 9910	25%						
an outer cover layer having	“FIG 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises .... a relatively soft outer layer 14 of polymeric material.” (Proudfit, col. 7, ll. 21-24.)						
a Shore D hardness of 64 or less molded on said inner cover layer,	“... an outer layer of soft material such as balata or a blend of balata and other elastomers.” (Proudfit, col. 5, ll. 15-17.) An example of this blend is disclose in Table 7 reproduced below.						

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<b>TABLE 7</b> <b>Composition of Outer Layer</b> <b>(Parts by Weight)</b>	
Trans Polyisoprene (TP-301)	60.00
Polybutadiene	40.00
Zinc Oxide	5.00
Titanium Dioxide	1.00
Ultramarine Blue color	.50
Zinc DiAcrylate	3.00
Peroxide (Verox 230 XL)	2.50
Total	160.00

Note that Trans PolyIsoprene is basically the chemical name for balata and Polybutadiene is one of the first types of synthetic rubber or elastomer. As described in the Rule 132 Declaration of Edmund A. Hebert in paragraph 7, the outer cover layer disclosed in Proudfit is the outer cover layer for the golf ball disclosed in Exhibit A to the Rule 132 Declaration and that **cover has a Shore D hardness of 52.** Thus, Proudfit's outer layer cover inherently has a Shore D hardness of less than 64.

| said outer cover layer comprising a relatively soft polymeric material selected from the group consisting of non-ionomeric thermoplastic and thermosetting elastomers. | "A golf ball cover in accordance with the invention includes ... an outer layer of soft material such as balata or a blend of balata and other elastomers. Preferably, the outer layer is a blend of balata and a thermally crosslinkable elastomer such as polybutadiene. **The balata and elastomer are crosslinked [(an indication that the material is a thermosetting material)]** during the molding of the ball by a crosslinker such as zinc diacrylate and a crosslinking initiator such as organic peroxide rather than using the conventional sulfur and RR2 crystals curing system for balata covers. The outer layer of the cover is completely crosslinked when the ball is removed from the mold, and subsequent processing steps can be performed in the same manner as on SURLYN covered balls." (Proudfit, col. 5, ll. 17-27.) |

This rejection of claim 1 based on Proudfit was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

#### **Proposed Third Party Requester Rejection: Ground #2.**

The requester submits on pages 18-19 in the request that claim 1 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan.

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**This rejection is not adopted for the reasoning that based on the prosecution history of the '130 Patent's copendency Sullivan '831 (Sullivan) is not prior art, see the Decision granting reexamination, mailed 04-06-06, para. 9.**

**Proposed Third Party Requester Rejection: Ground #3.**

The requester submits on pages 20-24 in the request that claim 1 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt.

In the request on pages 20 through 24 the third party requester proposes that claim 1 be rejected based upon Nesbitt alone with the incorporation by reference of Molitor '637. The third party requester points out that Molitor '637 is incorporated by reference into Nesbitt because Nesbitt refers to Molitor '637. (See Nesbitt col. 3, ll. 54-60).

**This rejection is not adopted.**

MPEP § 608.01(p) states that

[m]ere reference to another application, patent, or publication is not an incorporation of anything therein into the application containing such reference for the purpose of the disclosure required by 35 U.S.C. 112, first paragraph. *In re de Seversky*, 474 F.2d 671, 177 USPQ 144 (CCPA 1973). 37 CFR 1.57(b)(1) limits a proper incorporation by reference (except as provided in 37 CFR 1.57(a)) to instances only where the perfecting words "incorporated by reference" or the root of the words "incorporate" (e.g., incorporating, incorporated) and "reference" (e.g., referencing) appear. The requirement for specific root words will bring greater clarity to the record and provide a bright line test as to where something is being referred to is an incorporation by reference. The Office intends to treat references to documents that do not meet this "bright line" test as noncompliant incorporations by reference and may require correction pursuant to 37 CFR 1.57(g). If a reference to a document does not clearly indicate an intended incorporation by reference, examination will proceed as if no incorporation by reference statement has been made and the Office will not expend resources trying to determine if an incorporation by reference was intended. In addition to other requirements for an application, the referencing application must include an identification of the referenced patent, application, or publication. See 37 CFR

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1.57(b)(2). Particular attention should be directed to specific portions of the referenced document where the subject matter being incorporated may be found.

Thus, the reference to or the mentioning of another document does not confer an "incorporation by reference" of material especially "essential material" as defined in 37 CFR 1.57(c) which would be needed in this case to supply a basis for a rejection of the subject matter of this claimed invention, i.e. a reference must provide an enabling disclosure for all of the claimed structural features in the claim in order to anticipate the claim.

**Proposed Third Party Requester Rejection: Ground #4.**

In the alternative, the requester submits on pages 20-24 in the request that claim 1 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '637.

Claim 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor '637, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet) and Exhibit J (ESTANE 58133 Product Specification Sheet.)

Below is a claim chart identifying the claim limitations and which reference Nesbitt or Molitor '637 discloses, teaches or suggests the claim limitations.

Claim 1	Nesbitt (primary) with Molitor '637 (teaching)
A golf ball comprising:	"The disclosure embraces a <b>golf ball</b> and method of making the same..." (Nesbitt, Abstract and FIGS. 1 & 2.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or <b>core</b> form as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt, col. 2, ll. 31-34.)
an inner cover layer having	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or <b>inner cover</b> 14 of molded hard, highly flexural modulus resinous material..." (Nesbitt, col. 2, ll. 34-

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	<p>37.)</p> <p>a Shore D hardness of 60 or more molded on said core,</p> <p><u>Nesbitt:</u> “[I]nner cover 14 of <b>molded hard</b>, high flexural modulus resinous material such as type 1605 SURLYN marketed by E.I. Dupont de Nemours.” (Nesbitt, col. 2, ll. 36-38.)</p> <p><u>Per the ‘130 Patent:</u> “Type 1605 SURLYN (now designated SURLYN 8940).” (‘130 Patent, col. 2, ll. 46-47.)</p> <p><u>Exhibit I:</u> SURLYN 8940 has a <b>Shore D hardness of 65.</b></p>
the inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	<p><u>Nesbitt:</u> “Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for the golf ball of this invention.” (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor ‘637:</u> Molitor teaches, in examples 1-7, cover materials including a blend of two <b>ionomer resins</b>: SURLYN 1605 and SURLYN 1557. (Molitor ‘637, col. 14, l. 22 to col. 16, l. 34.)</p> <p>See below for further explanation of how the % by weight and chemical composition limitations are taught.</p>
an outer cover layer having	<p>“An <b>outer</b> layer, ply, lamination or <b>cover</b> 16 ... is then remolded onto the inner play or layer 14 ...” (Nesbitt, col. 2, ll. 43-47.)</p>
a Shore D hardness of 64 or less molded on said inner cover layer,	<p><u>Nesbitt:</u> “Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention.” (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor ‘637:</u> In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p>ESTANE 58133 has a <b>Shore D hardness of 55</b>, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p>See below for Shore D hardness of 64 or less limitation explanation.</p>

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<p>said outer cover layer comprising a relatively soft polymeric material selected from the group consisting of non-ionomeric thermoplastic and thermosetting elastomers.</p>	<p><u>Exhibit J: ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.</u></p>
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As mentioned above, Nesbitt references Molitor '637 as describing a number of compositions suitable for the inner cover layer 14. Of particular interest in this case are Examples 1-7 within Molitor '637. Examples 1-7 use a ratio of SURLYN 1605 and SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "from about 5[%] to about 15% by weight of unsaturated carboxylic acid." '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight percent methacrylic acid) ionomer resin having a flexural modulus of about 51,000 psi." See '873 Patent, col. 2, ll. 43-50. Moreover, as shown in the "Properties Grid for Selected Industrial Grades of SURLYN" SURLYN 9650's ordinate compared to the other grades of SURLYN is toward the "Low % Acid" side of the graph. Thus, based on this evidence, Nesbitt referencing Molitor '637 inherently teaches using as an inner layer at least one ionomer resin having no more than 16% by weight of alpha, beta-unsaturated carboxylic acid.

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Also, as mentioned above, Molitor '637 teaches in TABLE 10 an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133. A review of the scientific literature yields that ESTANE 58133 has an inherent Shore D hardness of 55, see Exhibit J "ESTANE 58133 TPU Product Data Sheet". A Shore D hardness of 55 is within the range claimed of Shore D hardness less than 64. Therefore, Molitor '637's teaching of using ESTANE 58133 inherently meets the claim limitation of providing a outer cover layer of polyurethane material having a Shore hardness of less than 64. Moreover, Molitor '637 teaches a list of materials that may adapted for use in the invention:

Homopolymeric and copolymeric substances, such as (1) vinyl resins formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene, and the like, including copolymers of polyolefins; (3) polyurethanes such as are prepared from polyols and organic polyisocyanates; (4) polyamides such as polyhexamethylene; (5) polystyrene, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) acrylic resins as exemplified by the copolymers of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) thermoplastic rubbers such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolybutadiene, etc.; and (8) polyphenylene oxide resins, or a blend with high impact polystyrene known by the trade name "Noryl."

See Molitor '637, col. 5, ll. 33-50.

In addition, Nesbitt discloses its outer layer was made from SURLYN 1855 (now SURLYN 9020). This material had inherently flexural modulus of about 14,000 psi and a Shore hardness of 55, see Exhibit I "Typical Properties for Selected Grades of SURLYN". Moreover, as admitted by the inventor Sullivan of the '873 patent, golf ball designers knew that the

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mechanical properties of the materials used as a golf-ball cover layer were more critical to golf ball performance than the actual materials themselves, see Exhibit G at 334.

Thus, because it appears that to one of ordinary skill in the art at the time the invention was created that the actual chemical composition of the material is not critical to the practice of the invention with respect to its mechanical performance, i.e. its "click and feel" for a golfer, one of ordinary skill in the art at the time the invention was made would find it obvious to substitute one material for another material if both materials had substantially the same mechanical properties.

This rejection of claim 1 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

**Proposed Third Party Requester Rejection: Ground #5.**

The requester submits on pages 25-26 in the request that claim 1 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Wu.

Claim 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Wu, as evidenced by Exhibit C.

Below is a claim chart identifying the claim limitations and which reference Nesbitt or Wu discloses, teaches or suggests the claim limitations. As reported in the Decision of 04-06-06 granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane materials, which are non-ionomeric thermoset materials, for the use as an outer layer.

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Claim 1	Nesbitt (primary) mentioning Molitor '637 with Wu (teaching)
A golf ball comprising:	"The disclosure embraces a <b>golf ball</b> and method of making the same..." (Nesbitt, Abstract and FIGS. 1 & 2.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or <b>core</b> form as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt, col. 2, ll. 31-34.)
an inner cover layer having	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or <b>inner cover</b> 14 of molded hard, highly flexural modulus resinous material..." (Nesbitt, col. 2, ll. 34-37.)
a Shore D hardness of 60 or more molded on said core,	<p><u>Nesbitt</u>: "[I]nner cover 14 of <b>molded hard</b>, high flexural modulus resinous material such as type 1605 SURLYN marketed by E.I. Dupont d Nemours." (Nesbitt, col. 2, ll. 36-38.)</p> <p><u>Per the '130 Patent</u>: "Type 1605 SURLYN (now designated SURLYN 8940)." ('130 Patent, col. 2, ll. 46-47.)</p> <p><u>Exhibit I</u>: SURLYN 8940 has a <b>Shore D hardness of 65</b>.</p>
the inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	<p><u>Nesbitt</u>: "Reference is made to the application Ser. No. 155,658 of Robert P. <b>Molitor</b> issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: Molitor teaches, in examples 1-7, cover materials including a blend of two <b>ionomer resins</b>: SURLYN 1605 and SURLYN 1557. (Molitor '637, col. 14, l. 22 to col. 16, l. 34.)</p> <p>See below for further explanation of how the % by weight and chemical composition limitations are taught.</p>
an outer cover layer having	<p>"An <b>outer</b> layer, ply, lamination or <b>cover</b> 16 ... is then remolded onto the inner play or layer 14 ..." (Nesbitt, col. 2, ll. 43-47.)</p> <p><u>Wu</u>: "Preferably, a golf ball is made in accordance with the present invention by molding a cover about a core wherein the cover is formed from a polyurethane composition comprising a</p>

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	<p>Polyurethane prepolymer and a slow-reacting polyamine curing agent or a difunctional glycol." (Wu, col. 3, ll. 62-66.)</p>
a Shore D hardness of 64 or less molded on said inner cover layer,	<p><u>Nesbitt</u>: "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p>Molitor '637: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p>ESTANE 58133 has a <b>Shore D hardness of 55</b>, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p><u>Wu</u>: "With polyurethanes made in accordance with the present invention, the degree of cure which has taken place is dependent upon, <i>inter alia</i>, the time, temperature, type of curative, and amount of catalyst used. It has been found that the degree of cure of the cover composition is directly proportional to the hardness of the composition. A hardness of about 10D to 30D, Shore D hardness for the cover stock at the end of the intermediate curing step (i.e. just prior to the final molding step) has been found to be suitable for the present invention. More preferred is a hardness of about 12D to 20D." (Wu, col. 6, ll. 27-38.)</p> <p>See below for more explanation of how Wu teaches and/or suggests the Shore D hardness of 64 or less limitation explanation.</p>
said outer cover layer comprising a relatively soft polymeric material selected from the group consisting of non-ionomeric thermoplastic and thermosetting elastomers.	<p><u>Exhibit J</u>: ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.</p> <p><u>Wu</u>: "[t]he present invention is a golf ball product made from a polyurethane prepolymer cured with a slow-reacting curing agent selected from the group of slow-reacting polyamine curing agents or difunctional glycols. The term "golf ball product" as used in the specification and claims means a cover, a core, a center or a one-piece golf ball. The cover of a golf ball made in accordance with the present invention has been found to have good shear resistance, cut resistance, durability</p>

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	and resiliency. Preferably, the polyurethane composition of the present invention is used to made the cover of a golf ball." (Wu, col. 2, ll. 33-44.)
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As mentioned above, Nesbitt mentioning Molitor '637 teaches the use of particular polyurethane materials for the use as an outer layer. Wu teaches that polyurethane was being used as the outer layer of golf ball *circa* 1993. Wu further teaches in col. 1:36-46 that SURLYN covered golf balls lack the "click" and "feel" of balata which golfers have become accustomed to such sensations and polyurethane covered golf balls can be made to have a similar "click" and "feel" of balata. Wu also at least teaches that polyurethanes made according to its invention will have Shore D hardness directly proportional to the degree of cure of the cover; and this Shore D hardness ranges from 10 to 30, preferably 12 to 20 on the Shore D scale, see col. 6:26-38. This teaching of Shore D hardness is directed to an intermediate curing step product prior to the final molding process to finish the golf ball. Exhibit C demonstrates the actual finished golf ball product having the cover layer that Wu teaches within its disclosure. Exhibit C teaches that the golf ball taught therein is covered by the following patents: 4,783,078; 4,846,910; 4,858,923; 4,904,320; 4,915,390; 5,007,594; 5,080,367; 5,133,509; 5,334,673; and D339,074. The '673 Patent teaches the cover sock of the Exhibit C finished golf ball. Exhibit C teaches that the golf ball taught therein has a cover material made from an "elastomer", having a thickness of .050", and 58 Shore D hardness. All three properties are within the range of mechanical properties of the claim invention (polyurethane is an elastomer, cover layer thickness ranges from 0.010 to 0.070 inches and the Shore D hardness is less than 64). Because it has been admitted by the inventor of the Sullivan '893 patent that the particular chemical properties of the materials (the

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chemical composition) used in the construction of a golf ball lack criticality as compared to the mechanical properties (the Shore D hardness, flexural modulus, layer thickness) of those compounds used for constructing the different layers (Exhibit G at 334), one of ordinary skill in the art at the time the invention was made would find it obvious to incorporate the teachings of Wu which inherently include the teachings of Shore hardness for the fully cured cover layer as taught in Exhibit C as obvious equivalent materials in order to achieve the same end result of providing a cover layer that has the same "click" and "feel" of a balata cover which the extra durability of an elastomeric material.

This rejection of claim 1 based on Nesbitt mentioning Molitor '637 in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

**Proposed Third Party Requester Rejection: Ground #6.**

The requester submits on pages 27-28 in the request that claim 1 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '751.

Claim 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Molitor '751.

Below is a claim chart identifying the claim limitation and where Nesbitt and/or Molitor '637 disclose, teach or suggest the claim limitations. As reported in the Decision granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane material for the use as an outer layer.

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Claim 1	Nesbitt (primary) mentioning Molitor '637
A golf ball comprising:	"The disclosure embraces a <b>golf ball</b> and method of making the same..." (Nesbitt, Abstract and FIGS. 1 & 2.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or <b>core</b> form as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt, col. 2, ll. 31-34.)
an inner cover layer having	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or <b>inner cover</b> 14 of molded hard, highly flexural modulus resinous material..." (Nesbitt, col. 2, ll. 34-37.)
a Shore D hardness of 60 or more molded on said core,	<p><u>Nesbitt</u>: "[I]nner cover 14 of <b>molded hard</b>, high flexural modulus resinous material such as type 1605 SURLYN marketed by E.I. Dupont de Nemours." (Nesbitt, col. 2, ll. 36-38.)</p> <p><u>Per the '130 Patent</u>: "Type 1605 SURLYN (now designated SURLYN 8940)." ('130 Patent, col. 2, ll. 46-47.)</p> <p><u>Exhibit I</u>: SURLYN 8940 has a <b>Shore D hardness of 65</b>.</p>
the inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	<p><u>Nesbitt</u>: "Reference is made to the application Ser. No. 155,658 of Robert P. <b>Molitor</b> issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: Molitor teaches, in examples 1-7, cover materials including a blend of two <b>ionomer resins</b>: SURLYN 1605 and SURLYN 1557. (Molitor '637, col. 14, l. 22 to col. 16, l. 34.)</p> <p>See below for further explanation of how the % by weight and chemical composition limitations are taught.</p>
an outer cover layer having	"An <b>outer layer</b> , ply, lamination or <b>cover</b> 16 ... is then remolded onto the inner play or layer 14 ..." (Nesbitt, col. 2, ll. 43-47.)
a Shore D hardness of 64 or less molded on said inner cover layer,	<u>Nesbitt</u> : "Reference is made to application Ser. No. 155,658 of Robert P. <b>Molitor</b> issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character

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	<p>which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p>Molitor '637: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p>ESTANE 58133 has a Shore D hardness of 55, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p>See below for Shore D hardness of 64 or less limitation explanation.</p>
said outer cover layer comprising a relatively soft polymeric material selected from the group consisting of non-ionomeric thermoplastic and thermosetting elastomers.	<p><u>Exhibit J:</u> ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.</p>

As mentioned above, Nesbitt references Molitor '637 as describing a number of compositions suitable for the inner cover layer 14. Of particular interest in this case are Examples 1-7 within Molitor '637. Examples 1-7 use a ratio of SURLYN 1605 and SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "from about 5[%] to about 15% by weight of unsaturated carboxylic acid." '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight percent

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methacrylic acid) ionomer resin having a flexural modulus of about 51,000 psi." See '873 Patent, col. 2, ll. 43-50. Moreover, as shown in the "Properties Grid for Selected Industrial Grades of SURLYN" SURLYN 9650's ordinate compared to the other grades of SURLYN is toward the "Low % Acid" side of the graph. Thus, based on this evidence, Nesbitt referencing Molitor '637 inherently teaches using as an inner layer at least one ionomer resin having no more than 16% by weight of alpha, beta-unsaturated carboxylic acid.

Also, Molitor '637 teaches in TABLE 10 an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133. A review of the scientific literature yields that ESTANE 58133 has an inherent Shore D hardness of 55, see Exhibit J "ESTANE 58133 TPU Product Data Sheet". **A Shore D hardness of 55 is within the range claimed of Shore D hardness less than 64.** Therefore, Molitor '637's teaching of using ESTANE 58133 inherently meets the claim limitation of providing a outer cover layer of polyurethane material having a Shore hardness of less than 64. Moreover, Molitor '637 teaches a list of materials that may adapted for use in the invention:

Homopolymeric and copolymeric substances, such as (1) vinyl resins formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene, and the like, including copolymers of polyolefins; (3) polyurethanes such as are prepared from polyols and organic polyisocyanates; (4) polyamides such as polyhexamethylene; (5) polystyrene, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) acrylic resins as exemplified by the copolymers of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) thermoplastic rubbers such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolylbutadiene, etc.; and (8) polyphenylene oxide resins, or a blend with high impact polystyrene known by the trade name "Noryl."

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See Molitor '637, col. 5, ll. 33-50.

As shown above in the claim chart, Nesbitt mentioning Molitor '673 suggests the use of a soft outer cover layer including a polyurethane material. In an analogous golf ball, Molitor '751 teaches that:

It has now been discovered that a key to manufacturing a two-piece ball having playability properties similar to wound, balata-covered balls is to provide about an inner resilient molded core **a cover having a shore C hardness less than 85**, preferably 70-80, and most preferably 72-76. The novel cover of the golf ball of the invention is made of a composition comprising a blend of (1) a thermoplastic urethane having a shore A hardness less than 95 and (2) an ionomer having a shore D hardness greater than 55.

(Molitor '751, col. 2, ll.33-49 (emphasis added)).

Moreover, in explaining what constitutes a two-piece golf ball, Molitor '751 teaches that:

The phrase "two piece ball" as used herein refers primarily to balls consisting of a molded core and a cover, but also includes balls having a separate solid layer beneath the cover as disclosed, for example, in U.S. Pat. No. 4,431,193 to Nesbitt, and other balls have non-wound cores.

(Molitor '751, col. 3, ll. 7-12 (emphasis added)).

As stated above, Molitor '751 teaches the cover of the golf ball has a Shore C hardness of less than 85, preferably 70-80, most preferably 72-76. As described in Molitor '751's TABLE bridging columns 7 and 8, Sample 8 constitutes one of the preferred embodiments and its cover is taught to have a Shore C hardness of 73. Patent Owner has admitted that a Shore C hardness of 73 is equal to a Shore D hardness of 47, see U.S. Pat. No. 6,905,648, Table 19 (Exhibit L). Thus, a cover having a Shore C hardness of between 72 and 76 will inherently have a Shore D hardness of less than 64.

How one of ordinary skill in the art would discover this inherent mechanical property of Shore D hardness for the polyurethane material used in Molitor '751 is by "translating" a Shore C value to a Shore D value for the polyurethane material. How one of ordinary skill in the art

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"translates" a Shore C value to a Shore D value is by taking the known Shore hardness values with a given range, in this instance Shore C, for given materials, in this instance polyurethane golf ball covers materials, and taking corresponding measurements with a different set of Shore gauges, in this instance Shore D (but could also be Shore A). A resulting trendline plot occurs from performing this procedure wherein the range of known Shore C values are the abscissa and the range of measured Shore D values are the ordinate. Then, said plot can be used to read equivalent Shore D value for any given Shore C value within the known range of Shore C. This is how one of ordinary skill in the art can know the equivalent Shore D or even Shore A hardness value for any given Shore C hardness value.

As stated in the request on page 28

It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the soft non-ionomeric polymeric outer cover layer incorporated by Nesbitt and replace it with an outer cover layer made of the soft polyurethane material taught by Molitor '751 to provide a golf ball that includes "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, ll. 61-68)

Moreover, because it appears that to one of ordinary skill in the art at the time the invention was created that the actual chemical composition of the material is not critical to the practice of the invention with respect to its mechanical performance, i.e. its "click and feel" for a golfer, one of ordinary skill in the art at the time the invention was made would find it obvious to substitute one material for another material if both materials had substantially the same mechanical properties.

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This rejection of claim 1 based on Nesbitt mentioning Molitor '637 in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Re. Claim 2

**Proposed Third Party Requester Rejection: Ground #7.**

The requester submits on pages 29-30 in the request that claim 2 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Proudfit.

Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Proudfit as evidenced by Exhibit G "The Relationship Between Golf Ball Construction and Performance".

Below is a claim chart identifying the claim limitations and where Proudfit discloses the claim limitations.

Claim 2	Proudfit
A golf ball according to claim 1, wherein the inner cover layer has a thickness of about 0.100 to about 0.010 inches	See above, Ground #1.  "The thickness of the inner layer can be within the range of about 0.0250 to 0.2875 inch to provide a total diameter of the inner layer and core within the range of about 1.550 to 1.590 inch." (col. 7, lines 37-40.) "The preferred dimensions are ... an inner layer thickness of 0.037 inch ...." (col. 7, lines 43-44.)
and the outer cover layer has a thickness of about 0.010 to about 0.070 inches,	"The thickness of the outer layer can be within the range of about 0.0450 to 0.0650 inch to provide a total ball diameter of 1.680 inch. The preferred dimensions are ... an outer layer thickness of 0.0525 inch ...." (col. 7, lines 40-46.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"The preferred dimensions are a core diameter of 1.500 inch, and inner layer thickness of 0.037 inch (inner layer diameter of 1.575 inch), and an outer layer thickness of 0.0525 inch (total ball diameter of 1.680 inch)." (col. 7, lines 43-47.)

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As admitted by the inventor of the instant Patent under reexamination, the "golf ball designer must adhere to the rules of golf as put forth by the USGA and R & A Golf Club." See Exhibit G "The relationship between golf ball construction and performance". At that time, the inventor identified the rules of the two governing bodies:

(1) the ball weight must not exceed 1.62 oz, (2) the ball size must be at least 1.68 inches in diameter, (3) initial velocity must not exceed 250 ft/sec with a 2% maximum tolerance when struck at 143.8 ft/sec, (4) overall distance must not exceed 280 yards with a 6% tolerance when hit with a USGA specified driver at 160 ft/sec (clubhead speed) at a 10 degree launch angle as tested by the USGA, and (5) the ball must pass the USGA administered symmetry test, i.e. fly consistently (in distance, trajectory and time of flight) regardless of how it is placed on the tee. Id.

Thus, based on the evidence present in the record and the admission of the inventor that "the golf ball designer must adhere to the rules of golf as put forth by the USGA," Proudfit would inherently have to meet the U.S.G.A. standards in order to have a golf ball invention that would be economically viable.

This rejection of claim 2 based on Proudfit was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

**Proposed Third Party Requester Rejection: Ground #8.**

The requester submits on page 31 in the request that claim 1 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan.

This rejection is not adopted for the reasoning that based on the prosecution history of the '130 Patent's copendency Sullivan '831 (Sullivan) is not prior art, see the Decision granting reexamination, mailed 04-06-06, para. 9.

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**Proposed Third Party Requester Rejection: Ground #9.**

The requester submits on page 32 in the request that claim 2 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt.

In the request on pages 20 through 24 the third party requester proposes that claim 1 be rejected based upon Nesbitt alone with the incorporation by reference of Molitor '637. In the request on page 32 the third party requester proposes where Nesbitt (passages that do not refer or mention Molitor '637) discloses the limitations of claim 2. The third party requester points out that Molitor '637 is incorporated by reference into Nesbitt because Nesbitt refers to Molitor '637. (See Nesbitt col. 3, ll. 54-60).

**This rejection is not adopted.**

MPEP § 608.01(p) states that

[m]ere reference to another application, patent, or publication is not an incorporation of anything therein into the application containing such reference for the purpose of the disclosure required by 35 U.S.C. 112, first paragraph. *In re de Seversky*, 474 F.2d 671, 177 USPQ 144 (CCPA 1973). 37 CFR 1.57(b)(1) limits a proper incorporation by reference (except as provided in 37 CFR 1.57(a)) to instances only where the perfecting words "incorporated by reference" or the root of the words "incorporate" (e.g., incorporating, incorporated) and "reference" (e.g., referencing) appear. The requirement for specific root words will bring greater clarity to the record and provide a bright line test as to where something is being referred to is an incorporation by reference. The Office intends to treat references to documents that do not meet this "bright line" test as noncompliant incorporations by reference and may require correction pursuant to 37 CFR 1.57(g). If a reference to a document does not clearly indicate an intended incorporation by reference, examination will proceed as if no incorporation by reference statement has been made and the Office will not expend resources trying to determine if an incorporation by reference was intended. In addition to other requirements for an application, the referencing application must include an identification of the referenced patent, application, or publication. See 37 CFR 1.57(b)(2). Particular attention should be directed to specific portions of the referenced document where the subject matter being incorporated may be found.

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Thus, the reference to or the mentioning of another document does not confer an "incorporation by reference" of material especially "essential material" as defined in 37 CFR 1.57(c) which would be needed in this case to supply a basis for a rejection of the subject matter of this claimed invention, i.e. a reference must provide an enabling disclosure for all of the claimed structural features in the claim in order to anticipate the claim.

**Proposed Third Party Requester Rejection: Ground #10.**

In the alternative, the requester submits on page 32 in the request that claim 2 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '637.

Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor '637, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet) and Exhibit J (ESTANE 58133 Product Specification Sheet.)

Below is a claim chart identifying the claim limitations and portions of the Nesbitt reference which discloses, teaches or suggests the claim limitations.

Claim 2	Nesbitt
A golf ball according to claim 1,	See above, Ground #4.
wherein the inner cover layer has a thickness of about 0.100 to about 0.010 inches	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (col. 3, lines 19-23.)
and the outer cover layer has a thickness of about 0.010 to about 0.070 inches,	"The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such as Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of 0.0575 inches." (col. 3, lines 39-40.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"According to the United States Golf Association Rules, the minimum diameter prescribed for a golf ball is 1.680 inches ...." (col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous

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	material in the form of a sphere is then remolded into a dimpled golf ball of a diameter of 1.680 inches minimum with an outer or cover layer 16 of a soft, low flexural modulus resin ...." (col. 3, lines 34-38.)
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This rejection of claim 2 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

**Proposed Third Party Requester Rejection: Ground #11.**

The requester submits on page 32 in the request that claim 2 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Wu.

Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Wu, as evidenced by Exhibit C.

Below is a claim chart identifying the claim limitations where the Nesbitt reference discloses, teaches or suggests the claim limitations. As reported in the Decision of 04-06-06 granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane materials, which are non-ionomeric thermoset materials, for the use as an outer layer.

Claim 2	Nesbitt
A golf ball according to claim 1, wherein the inner cover layer has a thickness of about 0.100 to about 0.010 inches	See above, Ground #5. "It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (col. 3, lines 19-23.)
and the outer cover layer has a thickness of about 0.010 to about 0.070 inches,	"The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such as Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (col. 3, lines 22-25.)

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	"The outer layer of the soft resin is of a thickness of 0.0575 inches." (col. 3, lines 39-40.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"According to the United States Golf Association Rules, the minimum diameter prescribed for a golf ball is 1.680 inches ...." (col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled golf ball of a diameter of 1.680 inches minimum with an outer or cover layer 16 of a soft, low flexural modulus resin ...." (col. 3, lines 34-38.)

This rejection of claim 2 based on Nesbitt in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

**Proposed Third Party Requester Rejection: Ground #12.**

The requester submits on page 32 in the request that claim 2 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '751.

Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Molitor '751.

Below is a claim chart identifying the claim limitation and where Nesbitt and/or Molitor '637 disclose, teach or suggest the claim limitations. As reported in the Decision granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane material for the use as an outer layer.

Claim 2	Nesbitt
A golf ball according to claim 1,	See above, Ground #6.

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wherein the inner cover layer has a thickness of about 0.100 to about 0.010 inches	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (col. 3, lines 19-23.)
and the outer cover layer has a thickness of about 0.010 to about 0.070 inches,	"The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such as Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of 0.0575 inches." (col. 3, lines 39-40.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"According to the United States Golf Association Rules, the minimum diameter prescribed for a golf ball is 1.680 inches ...." (col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled golf ball of a diameter of 1.680 inches minimum with an outer or cover layer 16 of a soft, low flexural modulus resin ...." (col. 3, lines 34-38.)

This rejection of claim 2 based on Nesbitt in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

#### Re. Claim 3

#### **Proposed Third Party Requester Rejection: Ground #13**

The requester submits on pages 33-34 in the request that claim 1 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Proudfit.

Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Proudfit as evidenced by Exhibit G "The Relationship Between Golf Ball Construction and Performance".

Below is a claim chart identifying the claim limitations and where Proudfit discloses the claim limitations.

Claim 2	Proudfit
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A golf ball according to claim 1, wherein the inner cover layer has a thickness of about 0.050 inches and	See above, Ground #1. “The thickness of the inner layer can be within the range of about 0.0250 to 0.2875 inch to provide a total diameter of the inner layer and core within the range of about 1.550 to 1.590 inch.” (col. 7, lines 37-40.) “The preferred dimensions are ... an inner layer thickness of 0.037 inch ....” (col. 7, lines 43-44.)
the outer cover layer has a thickness of about 0.055 inches,	“The thickness of the outer layer can be within the range of about 0.0450 to 0.0650 inch to provide a total ball diameter of 1.680 inch. The preferred dimensions are ... an outer layer thickness of 0.0525 inch ....” (col. 7, lines 40-46.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	“The preferred dimensions are a core diameter of 1.500 inch, and inner layer thickness of 0.037 inch (inner layer diameter of 1.575 inch), and an outer layer thickness of 0.0525 inch (total ball diameter of 1.680 inch).” (col. 7, lines 43-47.)

As admitted by the inventor of the instant Patent under reexamination, the “golf ball designer must adhere to the rules of golf as put forth by the USGA and R & A Golf Club.” See Exhibit G “The relationship between golf ball construction and performance”. At that time, the inventor identified the rules of the two governing bodies:

(1) the ball weight must not exceed 1.62 oz, (2) the ball size must be at least 1.68 inches in diameter, (3) initial velocity must not exceed 250 ft/sec with a 2% maximum tolerance when struck at 143.8 ft/sec, (4) overall distance must not exceed 280 yards with a 6% tolerance when hit with a USGA specified driver at 160 ft/sec (clubhead speed) at a 10 degree launch angle as tested by the USGA, and (5) the ball must pass the USGA administered symmetry test, i.e. fly consistently (in distance, trajectory and time of flight) regardless of how it is placed on the tee. Id.

Thus, based on the evidence present in the record and the admission of the inventor that “the golf ball designer must adhere to the rules of golf as put forth by the USGA,” Proudfit would inherently have to meet the U.S.G.A. standards in order to have a golf ball invention that would be economically viable.

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This rejection of claim 3 based on Proudfit was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

**Proposed Third Party Requester Rejection: Ground #14.**

The requester submits on page 35 in the request that claim 3 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan.

**This rejection is not adopted for the reasoning that based on the prosecution history of the '130 Patent's copendency Sullivan '831 (Sullivan) is not prior art, see the Decision granting reexamination, mailed 04-06-06, para. 9.**

**Proposed Third Party Requester Rejection: Ground #15.**

The requester submits on page 35-36 in the request that claim 3 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt.

In the request on pages 20 through 24 the third party requester proposes that claim 1 be rejected based upon Nesbitt alone with the incorporation by reference of Molitor '637. In the request on page 36 the third party requester proposes where Nesbitt (passages that do not refer or mention Molitor '637) discloses the limitations of claim 3. The third party requester points out that Molitor '637 is incorporated by reference into Nesbitt because Nesbitt refers to Molitor '637. (See Nesbitt col. 3, ll. 54-60).

**This rejection is not adopted.**

MPEP § 608.01(p) states that

[m]ere reference to another application, patent, or publication is not an incorporation of anything therein into the application containing such reference

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for the purpose of the disclosure required by 35 U.S.C. 112, first paragraph. *In re de Seversky*, 474 F.2d 671, 177 USPQ 144 (CCPA 1973). 37 CFR 1.57(b)(1) limits a proper incorporation by reference (except as provided in 37 CFR 1.57(a)) to instances only where the perfecting words “incorporated by reference” or the root of the words “incorporate” (e.g., incorporating, incorporated) and “reference” (e.g., referencing) appear. The requirement for specific root words will bring greater clarity to the record and provide a bright line test as to where something is being referred to is an incorporation by reference. The Office intends to treat references to documents that do not meet this “bright line” test as noncompliant incorporations by reference and may require correction pursuant to 37 CFR 1.57(g). If a reference to a document does not clearly indicate an intended incorporation by reference, examination will proceed as if no incorporation by reference statement has been made and the Office will not expend resources trying to determine if an incorporation by reference was intended. In addition to other requirements for an application, the referencing application must include an identification of the referenced patent, application, or publication. See 37 CFR 1.57(b)(2). Particular attention should be directed to specific portions of the referenced document where the subject matter being incorporated may be found.

Thus, the reference to or the mentioning of another document does not confer an “incorporation by reference” of material especially “essential material” as defined in 37 CFR 1.57(c) which would be needed in this case to supply a basis for a rejection of the subject matter of this claimed invention, i.e. a reference must provide an enabling disclosure for all of the claimed structural features in the claim in order to anticipate the claim.

**Proposed Third Party Requester Rejection: Ground #16.**

In the alternative, the requester submits on page 36 in the request that claim 3 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor ‘637.

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor ‘637, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet) and Exhibit J (ESTANE 58133 Product Specification Sheet.)

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Below is a claim chart identifying the claim limitations and portions of the Nesbitt reference which discloses, teaches or suggests the claim limitations.

Claim 3	Nesbitt
A golf ball according to claim 1, wherein	See above, Ground #4.
the inner cover layer has a thickness of about 0.050 inches and	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (col. 3, lines 19-23.)
the outer cover layer has a thickness of about 0.055 inches,	"The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such as Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of 0.0575 inches." (col. 3, lines 39-40.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"According to the United States Golf Association Rules, the minimum diameter prescribed for a golf ball is 1.680 inches ...." (col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled golf ball of a diameter of 1.680 inches minimum with an outer or cover layer 16 of a soft, low flexural modulus resin ...." (col. 3, lines 34-38.)

This rejection of claim 3 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

#### **Proposed Third Party Requester Rejection: Ground #17.**

The requester submits on page 36 in the request that claim 3 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Wu.

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Wu, as evidenced by Exhibit C.

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Below is a claim chart identifying the claim limitations where the Nesbitt reference discloses, teaches or suggests the claim limitations. As reported in the Decision of 04-06-06 granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane materials, which are non-ionomeric thermoset materials, for the use as an outer layer.

Claim 3	Nesbitt
A golf ball according to claim 1, wherein	See above, Ground #5.
the inner cover layer has a thickness of about 0.050 inches and	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (col. 3, lines 19-23.)
the outer cover layer has a thickness of about 0.055 inches,	"The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such as Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of 0.0575 inches." (col. 3, lines 39-40.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"According to the United States Golf Association Rules, the minimum diameter prescribed for a golf ball is 1.680 inches ...." (col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled golf ball of a diameter of 1.680 inches minimum with an outer or cover layer 16 of a soft, low flexural modulus resin ...." (col. 3, lines 34-38.)

This rejection of claim 3 based on Nesbitt in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

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**Proposed Third Party Requester Rejection: Ground #18.**

The requester submits on page 36 in the request that claim 3 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '751.

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Molitor '751.

Below is a claim chart identifying the claim limitation and where Nesbitt and/or Molitor '637 disclose, teach or suggest the claim limitations. As reported in the Decision granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane material for the use as an outer layer.

Claim 3	Nesbitt
A golf ball according to claim 1, wherein	See above, Ground #6.
the inner cover layer has a thickness of about 0.050 inches and	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (col. 3, lines 19-23.)
the outer cover layer has a thickness of about 0.055 inches,	"The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such as Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of 0.0575 inches." (col. 3, lines 39-40.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"According to the United States Golf Association Rules, the minimum diameter prescribed for a golf ball is 1.680 inches ...." (col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled golf ball of a diameter of 1.680 inches minimum with an outer or cover layer 16 of a soft, low flexural modulus resin ...." (col. 3, lines 34-38.)

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This rejection of claim 3 based on Nesbitt in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Re. Claim 4

**Proposed Third Party Requester Rejection: Ground #19.**

The requester submits on page 37 in the request that claim 4 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan '831.

**This rejection is not adopted for the reasoning that based on the prosecution history of the '130 Patent's copendency Sullivan '831 (Sullivan) is not prior art, see the Decision granting reexamination, mailed 04-06-06, para. 9.**

**Proposed Third Party Requester Rejection: Ground #20.**

The requester submits on pages 37-39 in the request that claim 4 is unpatentable under 35 U.S.C. § 103(a) Proudfit in view of Molitor '637.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Proudfit in view of Molitor '637.

What Proudfit discloses, teaches and suggest is discussed above in Ground #1 and is incorporated herein. Claim 4, which depends from claim 1, further limits the material used in the outer layer to be a polyurethane based material. Proudfit lacks disclosing using a polyurethane based material. As pointed out in the request on pages 38-39:

Proudfit teaches that "A number of golfers, primarily professional and low handicap golfers, prefer balata covered balls because of the higher spin rate, control, "feel," and

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"click" which balata provides." (Proudfit, col. 1, lines 49-52.) While Proudfit may not disclose the use of a polyurethane material in the outer cover layer it would have been obvious to modify Proudfit to include an outer cover layer including a polyurethane material rather than the balata disclosed therein because Proudfit seeks to solve the same problems associated with Surlyn-covered golf balls that polyurethane had been used to solve for years. Moreover, polyurethane has advantages over both balata and Surlyn as would have been readily appreciated by those skilled in the art at the time of the invention. Moreover, as recognized by the inventor himself, the particular materials used in the golf balls were not as important as the mechanical properties of those materials. (See Exhibit G at 334.) Because those skilled in the art would look to the mechanical properties of the materials when determining whether certain materials can be substituted for one another, those skilled in the art would recognize that the Estane polyurethane taught by Molitor '637 (having a flexural modulus of about 25,000 psi) and the polymeric outer cover layer material of Proudfit (which has a modulus of between 20,000 and 25,000 psi) would have been substitutable for one another. (Compare Exhibit J with Proudfit, col. 6, lines 28-31.) This would have further suggested to those skilled in the art that the Soft polymeric materials taught by Molitor '637, including, for example, the relatively soft, low modulus polyurethane material would have been substitutable for the soft polymeric outer cover layer as taught by Proudfit. Thus, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the balata-based outer cover layer of Proudfit to include the polyurethane outer cover layer of Molitor '637 because this polyurethane was a well known substitute to balata and gives a number of advantages over balata as would have been readily appreciated by those skilled in the art. These advantages include: (1) improved processability; (2) improved durability when compared to balata; (3) cost-effectiveness when compared to balata; and (4) having a good "click" and "feel." .... All of this would have led one of ordinary skill in the art to replace the soft balata-based outer cover layer of Proudfit with the soft polyurethane outer cover layer material of Molitor '637 at the time of the alleged invention.

This rejection of claim 4 based on Proudfit in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

**Proposed Third Party Requester Rejection: Ground #21.**

The requester submits on pages 39-40 in the request that claim 4 is unpatentable under 35 U.S.C. § 103(a) Proudfit in view of Wu.

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Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Proudfit in view of Wu.

What Proudfit discloses, teaches and suggest is discussed above in Ground #1 and is incorporated herein. Claim 4, which depends from claim 1, further limits the material used in the outer layer to be a polyurethane based material. Proudfit lacks disclosing using a polyurethane based material. As pointed out in the request on pages 39:

Proudfit teaches that: "A number of golfers, primarily professional and low handicap golfers, prefer balata covered balls because of the higher spin rate, control, "feel," and "click" which balata provides." (Proudfit, col. 1, lines 49-52.) While Proudfit may not disclose the use of a polyurethane material in the outer cover layer it would have been obvious to modify Proudfit to include an outer cover layer including a-polyurethane material rather than the balata disclosed therein because Proudfit seeks to solve the same problems associated with Surlyn-covered golf balls that polyurethane had been used to solve for years. Moreover, polyurethane has advantages over both balata and Surlyn as would have been readily appreciated by those skilled in the art at the time of the invention.

Moreover, as admitted by the inventor and pointed out on page 38 in the request: "the particular materials used in the golf balls were not as important as the mechanical properties of those materials. (See Exhibit G at 334.)" Thus, those skilled in the art would look to the mechanical properties of the materials when determining whether certain materials can be substituted for one another, and the actual chemical compounds and chemical properties are not critical so long as processes manufacturing the golf ball from said chemicals can be economically feasible.

As pointed out in the request on pages 39-40: Wu teaches that:

the problem with SURLYN®-covered golf balls, however, is that they lack the "click" and "feel" which golfers had become accustomed to with balata. "Click" is the sound when the ball is hit by a golf club and "feel" is the overall sensation imparted to the golfer when the ball is hit. It has been proposed to employ polyurethane as a cover stock for golf balls because, like SURLYN®, it has a relatively low price compared to

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balata and provides superior cut resistance over balata. However, unlike SURLYN®-covered golf balls, polyurethane-covered golf balls can be made to have the "click" and "feel" of balata. (Wu at col. 1, lines 36-46 (emphasis added).)

Additionally, the request on page 40 has pointed out that:

as the inventor of the '130 patent had indicated in a 1994 publication, golf ball designers understood that the mechanical properties of the layers impacted the performance of the golf ball more than the materials themselves. (Exhibit G at 334.) Additionally, Wu's polyurethane material inherently has a flexural modulus of about 23,000 psi. (Decl. of Jeffrey L. Dalton at ¶ 7.) Proudfit's outer cover layer material has a flexural modulus of between about 20,000 and 25,000 psi. (Proudfit, col. 6, lines 28-31.)

Therefore the request concludes on the same page:

one of ordinary skill in the art would have appreciated that using Wu's polyurethane as Proudfit's outer cover layer would have provided similar playability characteristics as well as numerous advantages including, for example, durability. Based on Wu's teachings, one of ordinary skill in the art would have recognized the substitutability of soft polyurethane for soft balata-based materials and the advantages of making such a substitution. These advantages include (1) low price compared to balata; (2) better cut resistance when compared to balata; and (3) a "click" and "feel" that is similar to balata. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the alleged invention to modify Proudfit's golf ball by replacing the soft balata-based outer cover layer with an outer cover layer made of soft polyurethane material because Wu's polyurethane has similar mechanical properties when compared to Proudfit's outer cover layer material and provides numerous advantages over balata while exhibiting the "click" and "feel" of balata.

This rejection of claim 4 based on Proudfit in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

#### **Proposed Third Party Requester Rejection: Ground #22.**

The requester submits on pages 41-42 in the request that claim 4 is unpatentable under 35 U.S.C. § 103(a) Proudfit in view of Molitor '751.

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Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Proudfit in view of Molitor '751.

What Proudfit discloses, teaches and suggest is discussed above in Ground #1 and is incorporated herein. Claim 4, which depends from claim 1, further limits the material used in the outer layer to be a polyurethane based material. Proudfit lacks disclosing using a polyurethane based material.

As discussed in the request on page 41:

Molitor '751 teaches that: It has now been discovered that a key to manufacturing a two-piece ball having playability properties similar to wound, balata-covered balls is to provide about an inner resilient molded core a cover having a shore C hardness less than 85, preferably 70-80, and most preferably 72-76. The novel cover of the golf ball of the invention is made of a composition comprising a blend of (1) a thermoplastic urethane having a shore A hardness less than 95 and (2) an ionomer having a shore D hardness greater than 55. (Molitor '751, is, the Molitor col. 2, lines 33-49.) In explaining what a "two-piece" golf ball '751 patent teaches that: The phrase "two piece ball" as used herein refers primarily to balls consisting of a molded core and a cover, but also includes balls having a solid layer beneath the cover as disclosed, for example, in U.S. Pat. No. 4,431,193 to Nesbitt, and other balls having non-wound cores. (Molitor '751, col. 2, lines 7-12.) Proudfit teaches a "two-piece" golf ball that fits within this definition. Molitor '751 explains that the advantages of using a cover including a soft polyurethane material on a two-piece golf ball, such as the golf ball of Proudfit, include "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, lines 61-68.) Molitor expresses the hardness of the cover material as a Shore C hardness of less than 85, preferably 70 to 85 and most preferably 72 to 76. (Molitor '751, col. 4, lines 21-25.) Based on Callaway's own measurements, a Shore C hardness of 73 is equal to a Shore D hardness of 47. (See [e.g.] U.S. Patent No. 6,905,648, Table 19 (attached hereto as Exhibit L).) A cover material having a Shore C hardness of between 72 and 76 will inherently have a Shore D hardness of less than 64.

Thus, the request concludes on page 42:

it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the soft balata outer cover layer of Proudfit with an outer cover layer including a soft polyurethane material as taught by of Molitor '751 to provide golf balls that have

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"playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, lines 61-68.)

This rejection of claim 4 based on Proudfit in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

**Proposed Third Party Requester Rejection: Ground #23.**

The requester submits on page 42-44 in the request that claim 4 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt.

In the request on pages 20 through 24 the third party requester proposes that claim 1 be rejected based upon Nesbitt alone with the incorporation by reference of Molitor '637. In the request on pages 42-43 the third party requester proposes where Nesbitt (passages that mention Molitor '637) discloses the limitations of claim 4. The third party requester points out that Molitor '637 is incorporated by reference into Nesbitt because Nesbitt refers to Molitor '637. (See Nesbitt col. 3, ll. 54-60).

**This rejection is not adopted.**

MPEP § 608.01(p) states that

[m]ere reference to another application, patent, or publication is not an incorporation of anything therein into the application containing such reference for the purpose of the disclosure required by 35 U.S.C. 112, first paragraph. *In re de Seversky*, 474 F.2d 671, 177 USPQ 144 (CCPA 1973). 37 CFR 1.57(b)(1) limits a proper incorporation by reference (except as provided in 37 CFR 1.57(a)) to instances only where the perfecting words "incorporated by reference" or the root of the words "incorporate" (e.g., incorporating, incorporated) and "reference" (e.g., referencing) appear. The requirement for specific root words will bring

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greater clarity to the record and provide a bright line test as to where something is being referred to is an incorporation by reference. The Office intends to treat references to documents that do not meet this "bright line" test as noncompliant incorporations by reference and may require correction pursuant to 37 CFR 1.57(g). If a reference to a document does not clearly indicate an intended incorporation by reference, examination will proceed as if no incorporation by reference statement has been made and the Office will not expend resources trying to determine if an incorporation by reference was intended. In addition to other requirements for an application, the referencing application must include an identification of the referenced patent, application, or publication. See 37 CFR 1.57(b)(2). Particular attention should be directed to specific portions of the referenced document where the subject matter being incorporated may be found.

Thus, the reference to or the mentioning of another document does not confer an "incorporation by reference" of material especially "essential material" as defined in 37 CFR 1.57(c) which would be needed in this case to supply a basis for a rejection of the subject matter of this claimed invention, i.e. a reference must provide an enabling disclosure for all of the claimed structural features in the claim in order to anticipate the claim.

**Proposed Third Party Requester Rejection: Ground #24.**

In the alternative, the requester submits on pages 42-44 in the request that claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '637.

Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor '637, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet) and Exhibit J (ESTANE 58133 Product Specification Sheet.)

Claim 4 depends from claim 1 and further limits the outer layer material to a polyurethane based material.

As mentioned above in Ground #4 which is incorporated herein, Nesbitt references Molitor '637 as describing a number of compositions suitable for the inner cover layer 14. Of

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particular interest in this case are Examples 1-7 within Molitor '637. Examples 1-7 use a ratio of SURLYN 1605 and SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "from about 5[%] to about 15% by weight of unsaturated carboxylic acid." '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight percent methacrylic acid) ionomer resin having a flexural modulus of about 51,000 psi." See '873 Patent, col. 2, ll. 43-50. Moreover, as shown in the "Properties Grid for Selected Industrial Grades of SURLYN" SURLYN 9650's ordinate compared to the other grades of SURLYN is toward the "Low % Acid" side of the graph. Thus, based on this evidence, Nesbitt referencing Molitor '637 inherently teaches using as an inner layer at least one ionomer resin having no more than 16% by weight of alpha, beta-unsaturated carboxylic acid.

Also, as mentioned above, Molitor '637 teaches in TABLE 10 an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133. A review of the scientific literature yields that ESTANE 58133 has an inherent Shore D hardness of 55, see Exhibit J "ESTANE 58133 TPU Product Data Sheet". A Shore D hardness of 55 is within the range claimed of Shore D hardness less than 64. Therefore, Molitor '637's teaching of using ESTANE 58133 inherently meets the claim limitation of providing a outer cover layer of polyurethane

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material having a Shore hardness of less than 64. Moreover, Molitor '637 teaches a list of materials that may adapted for use in the invention:

Homopolymeric and copolymeric substances, such as (1) vinyl resins formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene, and the like, including copolymers of polyolefins; (3) polyurethanes such as are prepared from polyols and organic polyisocyanates; (4) polyamides such as polyhexamethylene; (5) polystyrene, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) acrylic resins as exemplified by the copolymers of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) thermoplastic rubbers such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolybutadiene, etc.; and (8) polyphenylene oxide resins, or a blend with high impact polystyrene known by the trade name "Noryl."

See Molitor '637, col. 5, ll. 33-50.

In addition, Nesbitt discloses its outer layer was made from SURLYN 1855 (now SURLYN 9020). This material had inherently flexural modulus of about 14,000 psi and a Shore hardness of 55, see Exhibit I "Typical Properties for Selected Grades of SURLYN". Moreover, as admitted by the inventor Sullivan of the '873 patent, golf ball designers knew that the mechanical properties of the materials used as a golf-ball cover layer were more critical to golf ball performance than the actual materials themselves, see Exhibit G at 334.

Thus, because it appears that to one of ordinary skill in the art at the time the invention was created that the actual chemical composition of the material is not critical to the practice of the invention with respect to its mechanical performance, i.e. its "click and feel" for a golfer, one of ordinary skill in the art at the time the invention was made would find it obvious to substitute

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one material for another material if both materials had substantially the same mechanical properties.

This rejection of claim 4 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

**Proposed Third Party Requester Rejection: Ground #25.**

The requester submits on pages 44-46 in the request that claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Wu.

Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Wu, as evidenced by Exhibit C.

Claim 4 depends from claim 1 and further limits the outer layer material to a polyurethane based material. As reported in the Decision of 04-06-06 granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane materials, which are non-ionomeric thermoset materials, for the use as an outer layer.

As pointed out in the request on page 44:

Wu teaches that: The problem with SURLYN®-covered golf balls, however, is that they lack the "click" and "feel" which golfers had become accustomed to with balata. "Click" is the sound when the ball is hit by a golf club and "feel" is the overall sensation imparted to the golfer when the ball is hit. It has been proposed to employ polyurethane as a cover stock for golf balls because, like SURLYN®, it has a relatively low price compared to balata and provides superior cut resistance over balata. However, unlike SURLYN®-covered golf balls, polyurethane-covered golf balls can be made to have the "click" and "feel" of balata. (Wu at col. 1, lines 36-46.)

As pointed out in the request on page 45:

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- Moreover, as recognized by the inventor himself, the particular materials used in the golf balls were not as important as the mechanical properties of those layers. (See Exhibit G at 334.) The Surlyn® 1855 (now Surlyn® 9020) taught in Nesbitt's primary example has a Shore D hardness of 55 and a flexural modulus of about 14,000 psi. Wu's polyurethane material has a Shore D hardness of 58 as measured on the surface of the golf ball. (Exhibit C (showing that the polyurethane material used as the outer cover layer on the Titleist ProfessionalTM golf ball has a Shore D hardness of 58); see also Decl. of Jeffrey L. Dalton at ¶ 6.) In addition to being soft, Wu's polyurethane is a relatively low flexural modulus material. For example, this material has a flexural modulus of about 23,000 psi as tested in accordance with ASTM standards. (Decl. of Jeffrey L. Dalton at ¶7.) This is very similar to the hardness of the Surlyn® 1855 used in one example taught by Nesbitt.

Therefore, the request on pages 44, 45 and concludes:

it would have been obvious to modify the golf ball disclosed in Nesbitt to include an outer cover made of Wu's soft polyurethane material because it would exhibit an improved cut resistance over Surlyn or balata cover layers while providing a golf ball having the "click" and "feel" of a balata-covered ball; .... those skilled in the art would have been led to substitute the polyurethane of Wu for the soft ionomer cover layer of Nesbitt because such would give the same or improved playability properties and would improve durability properties; and .... it would have been obvious to modify the golf ball of Nesbitt to include an outer cover layer using the polyurethane disclosed by Wu because it provides a golf ball having a good "click" and "feel" and exhibits improved shear resistance and cut resistance when compared to balata-covered balls.

This rejection of claim 4 based on Nesbitt in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

**Proposed Third Party Requester Rejection: Ground #26.**

The requester submits on pages 46-47 in the request that claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '751.

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Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Molitor '751.

As reported in the Decision granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane material for the use as an outer layer.

Claim 4 depends from claim 1 and further limits the outer layer material to a polyurethane base material.

As pointed out in the request on page 46-47:

Molitor '751 teaches that: It has now been discovered that a key to manufacturing a two-piece ball having playability properties similar to wound, balata-covered balls is to provide about an inner resilient molded core a cover having a shore C hardness less than 85, preferably 70-80, and most preferably 72-76. The novel cover of the golf ball of the invention is made of a composition comprising a blend of (1) a thermoplastic urethane having a shore A hardness less than 95 and (2) an ionomer having a shore D hardness greater than 55. (Molitor '751, is, the Molitor col. 2, lines 33-49.) In explaining what a "two-piece" golf ball '751 patent explains that: The phrase "two piece ball" as used herein refers primarily to balls consisting of a molded core and a cover, but also includes balls having a solid layer beneath the cover as disclosed, for example, in U.S. Pat. No. 4,431,193 to Nesbitt, and other balls having non-wound cores. (Molitor '751, col. 2, lines 7-12.) Molitor explains that the advantages of using this cover on a two-piece golf ball, such as the golf ball of Nesbitt, include "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751 at col. 2, lines 61-68.) Molitor expresses the hardness of the cover material as a Shore C hardness of less than 85, preferably 70 to 85 and most preferably 72 to 76. (Molitor '751 at col. 4, lines 21-25.) Based on Callaway's own measurements, a Shore C hardness of 73 is equal to a Shore D hardness of 47. (See [e.g.] U.S. Patent No. 6,905,648, Table 19, Exhibit L.) Therefore, a cover material having a Shore C hardness of between 72 and 76 will inherently have a Shore D hardness of less than 64.

The request on page 47 makes the conclusion:

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the soft outer cover layer of Nesbitt and replace it with an

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outer cover made of the soft polyurethane materials taught by Molitor '751 to provide a golf ball that exhibits "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, lines 61-68.) Therefore, Nesbitt when taken in view of Molitor '751 render claim 4 obvious under 35 U.S.C. § 103(a). These references raise substantial new questions of patentability that were not previously considered by the PTO. Therefore, reexamination of claim 4 of the '130 patent is proper.

This rejection of claim 4 based on Nesbitt in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Re. Claim 5

**Proposed Third Party Requester Rejection: Ground #27.**

The requester submits on page 49-50 in the request that claim 5 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan '831.

**This rejection is not adopted for the reasoning that based on the prosecution history of the '130 Patent's copendency Sullivan '831 (Sullivan) is not prior art, see the Decision granting reexamination, mailed 04-06-06, para. 9.**

**Proposed Third Party Requester Rejection: Ground #28.**

The requester submits on pages 50-54 in the request that claim 5 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt.

In the request on pages 50 through 54 the third party requester proposes that claim 5 be rejected based upon Nesbitt alone with the incorporation by reference of Molitor '637. The third

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party requester points out that Molitor '637 is incorporated by reference into Nesbitt because Nesbitt refers to Molitor '637. (See Nesbitt col. 3, ll. 54-60).

**This rejection is not adopted.**

MPEP § 608.01(p) states that

[m]ere reference to another application, patent, or publication is not an incorporation of anything therein into the application containing such reference for the purpose of the disclosure required by 35 U.S.C. 112, first paragraph. *In re de Seversky*, 474 F.2d 671, 177 USPQ 144 (CCPA 1973). 37 CFR 1.57(b)(1) limits a proper incorporation by reference (except as provided in 37 CFR 1.57(a)) to instances only where the perfecting words "incorporated by reference" or the root of the words "incorporate" (e.g., incorporating, incorporated) and "reference" (e.g., referencing) appear. The requirement for specific root words will bring greater clarity to the record and provide a bright line test as to where something is being referred to is an incorporation by reference. The Office intends to treat references to documents that do not meet this "bright line" test as noncompliant incorporations by reference and may require correction pursuant to 37 CFR 1.57(g). If a reference to a document does not clearly indicate an intended incorporation by reference, examination will proceed as if no incorporation by reference statement has been made and the Office will not expend resources trying to determine if an incorporation by reference was intended. In addition to other requirements for an application, the referencing application must include an identification of the referenced patent, application, or publication. See 37 CFR 1.57(b)(2). Particular attention should be directed to specific portions of the referenced document where the subject matter being incorporated may be found.

Thus, the reference to or the mentioning of another document does not confer an "incorporation by reference" of material especially "essential material" as defined in 37 CFR 1.57(c) which would be needed in this case to supply a basis for a rejection of the subject matter of this claimed invention, i.e. a reference must provide an enabling disclosure for all of the claimed structural features in the claim in order to anticipate the claim.

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**Proposed Third Party Requester Rejection: Ground #29.**

In the alternative, the requester submits on pages 50-54 in the request that claim 5 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '637.

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor '637, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet) and Exhibit J (ESTANE 58133 Product Specification Sheet.)

Below is a claim chart identifying the claim limitations and which reference Nesbitt or Molitor '637 discloses, teaches or suggests the claim limitations.

Claim 5	Nesbitt (primary) with Molitor '637 (teaching)
A multi-layer golf ball comprising:	<p>"The disclosure embraces a <b>golf ball</b> and method of making the same..." (Nesbitt, Abstract and FIGS. 1 &amp; 2.)</p> <p>"The present invention relates to golf balls and, more particularly, to improved golf balls comprising multi-layer covers which have a hard inner layer and a relatively soft outer layer." (Nesbitt, col. 1, lines 14-17.)</p>
a spherical core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or <b>core</b> form as a solid body of resilient polymeric material or rubber-like material in the shape of a <b>sphere</b> ." (Nesbitt, col. 2, ll. 31-34.)
an inner cover layer having	<p>"Disposed on the spherical center or core 12 is a first layer, lamination, ply or <b>inner cover</b> 14 of molded hard, highly flexural modulus resinous material..." (Nesbitt, col. 2, ll. 34-37.)</p> <p>"The multi-layered cover 12 comprises two layers: a first or inner layer or ply 14 .... The inner layer can be ionomer, ionomer blends ...." (Nesbitt, col. 5, lines 6-9.)</p>
a Shore D hardness of about 60 or more molded over said spherical core,	<u>Nesbitt</u> : "[I]nner cover 14 of <b>molded hard</b> , high flexural modulus resinous material such as type 1605 SURLYN marketed by E.I. Dupont de Nemours." (Nesbitt, col. 2, ll. 36-38.)

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	<p><u>Per the '130 Patent:</u> "Type 1605 SURLYN (now designated SURLYN 8940)." ('130 Patent, col. 2, ll. 46-47.)</p> <p><u>Exhibit I:</u> SURLYN 8940 has a Shore D hardness of 65.</p>
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	<p><u>Nesbitt:</u> "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637:</u> Molitor teaches, in examples 1-7, cover materials including a blend of two <b>ionomer resins</b>: SURLYN 1605 and SURLYN 1557. (Molitor '637, col. 14, l. 22 to col. 16, l. 34.)</p> <p>See below for further explanation of how the % by weight and chemical composition limitations are taught.</p>
and having a modulus of from about 15,000 to about 70,000 psi;	See below.
an outer cover layer having	"An <b>outer</b> layer, ply, lamination or <b>cover</b> 16 ... is then remolded onto the inner play or layer 14 ..." (Nesbitt, col. 2, ll. 43-47.)
a Shore D hardness of 64 or less	<p><u>Nesbitt:</u> "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637:</u> In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p>ESTANE 58133 has a <b>Shore D hardness of 55</b>, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p>See below for Shore D hardness of 64 or less limitation explanation.</p>
molded over said spherical intermediate ball to form a	"An outer layer, ply, lamination or <b>cover</b> 16 of comparatively soft, low flexural modulus resinous material ... is then re-

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multi-layer golf ball,	molded onto the inner ply or layer 14 ...." (Nesbitt, col. 2, lines 43-47.)
said outer cover layer comprising a polyurethane based material.	<p><u>Nesbitt:</u> "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for one or both layers 14 and 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637:</u> Teaches cover materials including "polyurethanes such as are prepared from polyols and organic polyisocyanates"; specifically teaches Estane 58133 thermoplastic polyurethane. (Molitor '637, col. 5, lines 39-41; col. 18, lines 31-59 (examples 16 and 17).)</p> <p><u>Exhibit J:</u> ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.</p>

As mentioned above, Nesbitt references Molitor '637 as describing a number of compositions suitable for the inner cover layer 14. Of particular interest in this case are Examples 1-7 within Molitor '637. Examples 1-7 use a ratio of SURLYN 1605 and SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "**from about 5[%] to about 15% by weight of unsaturated carboxylic acid.**" '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight percent methacrylic acid) ionomer resin having a flexural modulus of about 51,000 psi." See